

In re Application of GEIDL
Serial No. 09/976,188

REMARKS

The Office action has been carefully considered. The Office action rejected claims 1-2, 6-7, 9-10, and 12-15 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 20030001899 to Partanen et al. ("Partanen"). The Office action rejected claims 18-20, 23 and 25-29 under 35 U.S.C. § 102(b) as being anticipated by *Quantitative Results Comparing Three Intelligent Interfaces for Information Capture: A Case Study Adding Name Information into an Electronic Personal Organizer*, published in the December 1996 issue of the *Journal of Artificial Intelligence Research* 5 by Schlimmer et al. ("Schlimmer"). Further, the Office action rejected claims 3-5, 8, and 16-17 under 35 U.S.C. § 103(a) as being unpatentable over Partanen in view of U.S. Patent No. 5,956,423 to Frink et al. ("Frink"). Further yet, the Office action rejected claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Partanen in view of U.S. Patent No. 6,018,736 to Gilai et al. ("Gilai"). Still further, the Office action rejected claims 21-22 and 30-33 under 35 U.S.C. § 103(a) as being unpatentable over Schlimmer in view of Frink. Finally, the Office action rejected claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Schlimmer in view of Microsoft Excel. Regarding these claim rejections, applicant respectfully disagrees.

By present amendment, claims 1, 18, and 30 have been amended for clarification and not in view of the prior art. Applicant submits that the claims as filed were patentable over the prior art of record, and that the amendments herein are for purposes of clarifying the claims and/or for expediting allowance of the

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claims and not for reasons related to patentability. Reconsideration is respectfully requested.

Applicant thanks the Examiner for the interview held (by telephone) on January 20, 2005. During the interview, the Examiner and applicant's attorney discussed the claims with respect to the prior art. The essence of applicant's position is incorporated in the remarks below.

Prior to discussing reasons why applicant believes that the claims in this application are clearly allowable in view of the teachings of the cited and applied references, a brief description of the present invention is presented.

The present invention is directed to a system and method for facilitating the input of handwritten data into a computing environment. In one embodiment, a first program executing in the computer environment is able to evaluate various fields of a second program also executing in the computer environment to determine whether or not handwritten data may be input into a field. As such, the first program may display a semi-transparent user input interface relative to an application's currently focused input field at times when handwritten input is appropriate. The semi-transparent user interface may be displayed when a text input field receives focus, *i.e.*, the application is ready to receive input. The user interface may be displayed either over the top of or near the input field. Thus the user interface may receive handwritten data, while at the same time the input field may still receive typed data. In this manner, a user may enter information to the field through simple typing or through handwriting that uses a recognition engine to provide data to the field as well.

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The semi-transparent input field can grow as needed to receive input, or will disappear when not used for a time. Handwritten data is recognized and passed to the application as if it was typed in the focused field, and the application need not be aware that handwriting may be used to enter data, as the system and method are external to the application. Pen events that are not handwriting, but comprise gestures directed to the program through the semi-transparent input user interface, may also be detected by a gesture detection engine and sent to the application. A user may, thus, be guided to enter handwriting, while handwriting recognition appears to be built into applications, whether or not those applications are aware of handwriting capabilities.

Note that the above description is for example and informational purposes only, and should not be used to interpret the claims, which are discussed below.

Claim Rejections under §102

Turning to the claims, amended claim 1 recites in a computing device having an executing program, a method comprising evaluating a program field that has focus against information indicative of whether the field is configured to receive text input from typed user input; and if the field is configured to receive text input 1) providing a visible user input interface at a displayed location relative to the field such that the user input interface is operable to receive handwritten data while the field is operable to receive input data, the program field still operable to receive typed user input, 2) receiving handwritten data at the input interface, 3) providing the handwritten data to a recognition engine, and 4) returning a recognition result to the program.

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The Office action rejected claim 1 as being anticipated by Partanen. More specifically, the Office action contends that Partanen teaches evaluating a program field that has focus against information indicative of whether the field is configured to receive text input. Page 1, paragraph 0016 of Partanen is referenced. Further, the Office action contends that Partanen teaches if the field is configured to receive text input, providing a visible user input interface at a displayed location relative to the field. Page 1, paragraph 0016, FIG. 1, page 2, paragraph 0032, and page 3, paragraph 0038 of Partanen are referenced. Further yet, the Office action contends that Partanen teaches receiving handwritten data at the input interface. Page 2, paragraph 0022 of Partanen is referenced. Still further, the Office action contends that Partanen teaches providing the handwritten data to a recognition engine. Page 2, paragraph 0025 of Partanen is referenced. Finally, the Office action contends that Partanen teaches returning a recognition result to the program. Page 2, paragraph 0022 of Partanen is referenced. Applicant respectfully disagrees.

Partanen teaches, generally, a system and method for allowing a user of an electronic device, such as a PDA or a mobile phone, to input data via a handwriting recognition system. As such, Partanen may teach a semi-transparent window in which the user of the electronic device may open and initiate handwritten input that is entered inside the newly opened, semi-transparent window on a touch sensitive screen. The inputted handwritten data may be sent to a handwriting recognition engine, which, in turn, translates the handwritten data into digital text representations that may then appear in an associated underlying field.

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However, the system taught by Partanen does not provide for nor allow typed text to be entered directly into an underlying field. In fact, there is no teaching anywhere in Partanen about an underlying field remaining active such that typed text may be entered while the semi-transparent window is present. Further, there is no teaching of typed input in any manner at all in Partanen. At best, Partanen teaches a virtual keyboard wherein a user may use a stylus to select characters from a graphic interface. This teaching is merely a hand gesture recognition which is still just another form of handwriting recognition. Moreover, there is no teaching in Partanen that both the semi-transparent field and the underlying field may simultaneously receive handwritten input and typed user input, respectively.

In contrast, the method of claim 1 recites providing a visible user input interface at a displayed location relative to the field such that the user input interface is operable to receive handwritten data while the field is operable to receive input data, the program field still operable to receive typed user input. That is, an input field may still receive typed data from a keyboard (not a virtual keyboard) while the associated visible user input interface may receive handwritten input data, which may be translated by a handwriting recognition engine and returned to the input field. Certainly, Partanen, or any other prior art of record can not be construed to teach this recitation. For at least the foregoing reasons, applicant submits that claim 1 is allowable over the prior art of record.

Applicant respectfully submits that dependent claims 2, 6-7, 9-10, and 12-15 by similar analysis, are allowable. Each of these claims depends either directly or

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indirectly from claim 1 and consequently includes the recitations of independent claim 1. As discussed above, Partanen fails to disclose the recitations of claim 1 and, therefore, these claims are also allowable over the prior art of record. In addition to the recitations of claim 1 noted above, each of these dependent claims includes additional patentable elements.

For example, claim 10 recites evaluating at least one window attribute corresponding to the field comprises accessing window class information. Nowhere in the teachings of Partanen is there any mention or appreciation of the concept of window class information, let alone a teaching of this concept. Partanen simply teaches expanding an input field when double-tapped and does not show any capability of assessing window attributes or window class information. Applicant submits that claim 10 is allowable over the prior art of record for at least this additional reason.

Turning to the next independent claim, amended claim 18 recites in a computing device having a program, a system comprising user input interface code operable to receive typed input from a user; a field typing engine configured to evaluate a field of the program, determine if that field is supported by the user input interface code, and if so, to communicate information to the user input interface code; the user input interface code drawing a visible input area to indicate that data may be entered therein while still allowing the user to enter typed input via the user input interface code, the drawing of the visible input area based on the information received from the field typing engine; and a recognition engine that receives

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entered data from the user input interface code and converts the entered data to a recognition result that is made available to the program by the user input interface.

The Office action rejected claim 18 as being anticipated by Schlimmer. More specifically, the Office action contends that Schlimmer teaches all the recitations of claim 18 and cites section 2, pages 330 and 331, and FIG. 1 in support of this conclusion. Applicant respectfully disagrees.

As has been argued in a previous Office action response, Schlimmer is merely an example of an application that has a handwriting data recognition engine already part of the entire application. An input field must be expanded by a user double tapping a field into which it is desired to have data entered. To the extent that Schlimmer teaches a handwriting recognition system, it merely teaches one that may have data entered into its own application. Significantly, the program of Schlimmer cannot be applied to an entirely separate application such that handwriting recognition can be extended to any program having an input field.

Furthermore, Schlimmer does not teach or even show any appreciation of the concept of evaluating a field of a program to determine if that field is supported by a user input interface code, and if so, communicating information to the user input interface code such that the user input interface code may draw a visible user input interface as recited in claim 18. At best, Schlimmer teaches expanding an input field when a user double-taps an input field such that the input field expands for the user to enter handwriting data. Expanding an input field after a user-initiated double-tap is not the same as evaluating a field for its ability to receive an

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input and then drawing a visible user input interface in response to that determination.

Nevertheless, claim 18 has been amended to recite the user input interface code drawing a visible input area to indicate that data may be entered therein while still allowing the user to enter typed input via the user input interface code. That is, an input field may still receive typed data from a keyboard while the associated visible user input interface may receive handwritten input data, which may be translated by a handwriting recognition engine and returned to the input field. Certainly, Schlimmer, or any other prior art of record can not be construed to teach this recitation. For at least the foregoing reasons, applicants submits that claim 18 is allowable over the prior art of record.

Applicant respectfully submits that dependent claims 19-20, 23, and 25-29 by similar analysis, are allowable. Each of these claims depends either directly or indirectly from claim 18 and consequently includes the recitations of independent claim 18. As discussed above, Schlimmer fails to disclose the recitations of claim 18 and, therefore, these claims are also allowable over the prior art of record. In addition to the recitations of claim 18 noted above, each of these dependent claims includes additional patentable elements.

Claim Rejections under §103

The Office action rejected claims 3-5, 8, and 16-17 under 35 U.S.C. § 103(a) as being unpatentable over Partanen in view of Frink. Further, the Office action rejected claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Partanen in view of Gilai. Still further, the Office action rejected claims 21-22 and 30-33 under

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35 U.S.C. § 103(a) as being unpatentable over Schlimmer in view of Frink. Finally, the Office action rejected claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Schlimmer in view of Microsoft Excel.

Looking at the first set of these claims rejected under §103, the Office action rejected claims 3-5, 8, and 16-17 as being unpatentable over Partanen in view of Frink. More specifically, the Office action contends that Partanen teaches (as detailed in the §102 discussion above) above each of the recitations in claim 1, the claim from which these claims ultimately depend. However, the Office acknowledges that Partanen does not teach at least one recitation in each of these claims, but contends that Frink does teach these recitations. Thus, the Office action concludes that Partanen in view of Frink renders obvious the recitations of claims 3-5, 8, and 16-17.

To establish prima facie obviousness of a claimed invention, all of the claim recitations must be taught or suggested by the prior art; (*In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)), and "all words in a claim must be considered in judging the patentability of that claim against the prior art;" (*In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)). Further, if prior art, in any material respect teaches away from the claimed invention, the art cannot be used to support an obviousness rejection. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed Cir. 1997). Moreover, if a modification would render a reference unsatisfactory for its intended purpose, the suggested modification / combination is impermissible. See MPEP § 2143.01

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Claims 3-5, 8, and 16-17 depend either directly or indirectly from claim 1. As discussed above with respect to the §102 rejections of claim 1, Partanen does not teach nor even allow typed text to be entered directly into an underlying field. In fact, there is no teaching anywhere in Partanen about an underlying field remaining active such that typed text may be entered while the semi-transparent window is present. Further, there is no teaching of typed input in any manner at all in Partanen. In contrast, the method of claim 1 recites providing a visible user input interface at a displayed location relative to the field such that the user input interface is operable to receive handwritten data while the field is operable to receive input data, the program field still operable to receive typed user input. Frink does not teach this recitation either. Certainly, Partanen in any permissible combination with Frink or any other prior art of record does not teach or suggest two distinct fields capable of receiving handwritten data and typed data respectively.

Applicant respectfully submits that dependent claims 3-5, 8, and 16-17 by similar analysis are allowable. Each of these claims depends either directly or indirectly from claim 1 and consequently includes the recitations of independent claim 1. As discussed above, Partanen and Frink, whether considered alone or in any permissible combination, fail to teach or suggest the recitations of claim 1. Therefore, these claims are allowable over Partanen and Frink. In addition to the recitations of claim 1 noted above, each of these dependent claims includes additional patentable elements which neither Partanen nor Frink teaches or suggests.

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For example, claim 3 recites the method of claim 1 wherein the handwritten data received at the user input interface is evaluated to determine whether the handwritten data corresponds to a gesture. The Office acknowledges that Partanen does not disclose that handwritten data may correspond to a gesture. However, the Office action contends that Partanen, when combined with Frink discloses the recitation of claim 3 because one would have been motivated to make such a combination in order to allow users to easily edit the comments, thereby reducing the confusion of mixing up editing commands and data input by the user. Applicant respectfully disagrees.

In claim 3, handwritten data may be inputted to a field capable of receiving handwritten data while in relation to another field still capable of receiving typed data. To the extent that Frink teaches recognition of gesture inputs, it is no more applicable to the teachings of Partanen than a person capable of recognizing sign language. In order to combine the teachings of Partanen with the teachings of Frink, there must be some motivation suggested by the prior art. Applicant submits that the Office action is impermissibly using hindsight reasoning based on the state of the art today. As a matter of law, obviousness may not be established using hindsight obtained in view of the teachings or suggestions of the applicants. *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1551, 1553, 220 USPQ 303, 311, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). To guard against the use of such impermissible hindsight, obviousness needs to be determined by ascertaining whether the applicable prior art contains any suggestion or motivation for making the modifications in the design of the prior art article in order to produce

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the claimed design. The mere possibility that a prior art teaching could be modified or combined such that its use would lead to the particular limitations recited in a claim does not make the recited limitation obvious, unless the prior art suggests the desirability of such a modification. See *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). For at least these reasons, applicant submits that claim 3 is allowable over the prior art of record.

Next, the Office action rejected claim 11 under as being unpatentable over Partanen in view of Gilai. Claim 11 depends from claim 1, and, thus, applicant respectfully submits that claim 11, by similar analysis to the analysis discussed above with respect to claim 1, is allowable. Because claim 11 depends from claim 1, claim 11 consequently includes the recitations of independent claim 1. As discussed above, Partanen fails to teach or suggest the recitations of claim 1, and, therefore, claim 11 is also allowable over Partanen and Gilai, whether considered alone or in any permissible combination.

The Office action also rejected claims 21 and 22 as being unpatentable over Schlimmer in view of Frink. Applicant respectfully submits that dependent claims 21 and 22 by analysis similar to the analysis discussed above with respect to the §102 rejection of claim 18, are allowable. Each of these claims depends either directly or indirectly from claim 18 and consequently includes the recitations of independent claim 18. As discussed above, Schlimmer fails to disclose all of the recitations of claim 18. Similarly, Frink fails to disclose the recitations of claim 18. Neither Schlimmer nor Frink, whether considered alone or in any permissible

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combination, teach or suggest the recitations of claim 18. For at least these reasons, dependent claims 21 and 22 are also allowable.

The Office action also rejected claim 24 as being unpatentable over Schlimmer in view of Microsoft Excel. Applicant respectfully submits that dependent claim 24, by analysis similar to the analysis discussed above with respect to claim 18, is allowable. Claim 24 depends indirectly from claim 18 and consequently includes the recitations of independent claim 18. As discussed above, Schlimmer fails to disclose the recitations of claim 18. Furthermore, Microsoft Excel fails to disclose the recitation of claim 18. Neither Schlimmer nor Microsoft Excel, whether considered alone or in any permissible combination, teach or suggest the recitations of claim 18, and, therefore, claim 24 is also allowable over the prior art of record for at least these reasons.

Turning to the last independent claim, amended claim 30 recites in a computer system having a graphical user interface, a system comprising an application program having at least one application input area into which user input data can be entered wherein at least one way in which input data may be entered includes user-typed data, user interface code external to the application program a typing engine that determines whether to call the user interface code for a selected application input area of the application program based on attribute information associated with that application input area, the user interface code providing a semi-transparent input area based on the attribute information when called, the semi-transparent input area configured such that a user may still enter data via user-typed data input into the user interface code, a timing mechanism configured

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to cause removal of the semi-transparent input area when no user interaction with the visible input area is detected for a period of time, a gesture engine, the gesture engine invoked to determine whether user input data directed to the semi-transparent input area is a gesture directed to the application program or information that should be recognized as text, and a handwriting recognition engine, the handwriting recognition engine configured to receive the information that the gesture engine has decided should be recognized as text, the handwriting recognition engine responding by returning recognized text when provided with the information.

The Office action rejected claim 30 as being unpatentable over Schlimmer in view of Frink. More specifically, the Office action contends that Schlimmer teaches several of the recitations of claim 30 and cites support for such teachings in the limited section of Schlimmer as discussed previously (section 2, pages 330 and 331). However, the Office action correctly acknowledges that Schlimmer does not teach a timing mechanism and a gesture engine as recited in claim 30. To that end, the Office action contends that Frink does teach these recitations and that it would have been obvious to a person skilled in the art at the time the invention was made to combine the teachings of Schlimmer with the teachings of Frink because such a combination allows a user to easily edit documents thus reducing the confusion of mixing up editing commands and data input. Applicant respectfully disagrees.

Schlimmer, as a reference, is a very limited disclosure of a system and method for inputting data to a computing environment. Schlimmer does not show

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any teachings of the manner in which handwriting is recognized, the manner in which handwriting is converted to text, or the manner in which all data is stored, maneuvered, and manipulated. In short, Schlimmer does not adequately teach much of anything outside of the scope of its study directed toward the speed at which data may be entered. As such, Schlimmer, as a whole, lacks any motivation whatsoever to be combined with other references outside other studies of data entry speed.

Furthermore, Schlimmer does not teach a typing engine that determines whether to call the user interface code for a selected application input area of the application program based on attribute information associated with that application input area, the user interface code providing a semi-transparent input area based on the attribute information when called as recited in claim 30. Instead, Schlimmer teaches expanding an input field when a user double-taps a tab in the field such that a user may enter handwriting data. By any stretch, the teachings of Schlimmer cannot be construed to teach a semi-transparent input area based on the attribute information.

Nevertheless, claim 30 has been amended to recite the semi-transparent input area configured such that a user may still enter data via user-typed data input into the user interface code. Certainly, neither Schlimmer nor Frink, whether considered alone or in any permissible combination, can be construed to teach or suggest the recitations of claim 30. For at least the foregoing reasons, applicants submits that claim 30 is allowable over the prior art of record.

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The Office action rejected claims 31-33 as being unpatentable over Schlimmer in view of Frink. Applicant respectfully submits that dependent claims 31-33 by analysis similar to the analysis discussed above with respect to claim 30, are allowable. Each of these claims depends directly from claim 30 and consequently includes the recitations of independent claim 30. As discussed above, Schlimmer and Frink, whether considered alone or in any permissible combination at law, fail to teach or suggest the recitations of claim 30, and, therefore, these claims are also allowable over the prior art of record.

For at least these additional reasons, applicant submits that all the claims are patentable over the prior art of record. Reconsideration and withdrawal of the rejections in the Office action is respectfully requested and early allowance of this application is earnestly solicited.

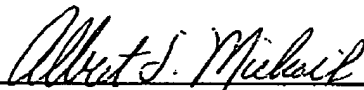
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CONCLUSION

In view of the foregoing remarks, it is respectfully submitted that claims 1-33 are patentable over the prior art of record, and that the application is in good and proper form for allowance. A favorable action on the part of the Examiner is earnestly solicited.

If in the opinion of the Examiner a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney at (425) 836-3030.

Respectfully submitted,



Albert S. Michalik, Reg. No. 37,395
Attorney for Applicants
Law Offices of Albert S. Michalik, PLLC
704 - 228th Avenue NE, Suite 193
Sammamish, WA 98074
(425) 836-3030
(425) 836-8957 (facsimile)

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this Response, along with transmittal, petition for extension of time, credit card payment form and facsimile cover sheet, are being transmitted by facsimile to the United States Patent and Trademark Office in accordance with 37 C.F.R. 1.6(d) on the date shown below:

Date: March 21, 2005



Albert S. Michalik

2870 Second Amendment